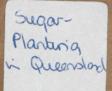
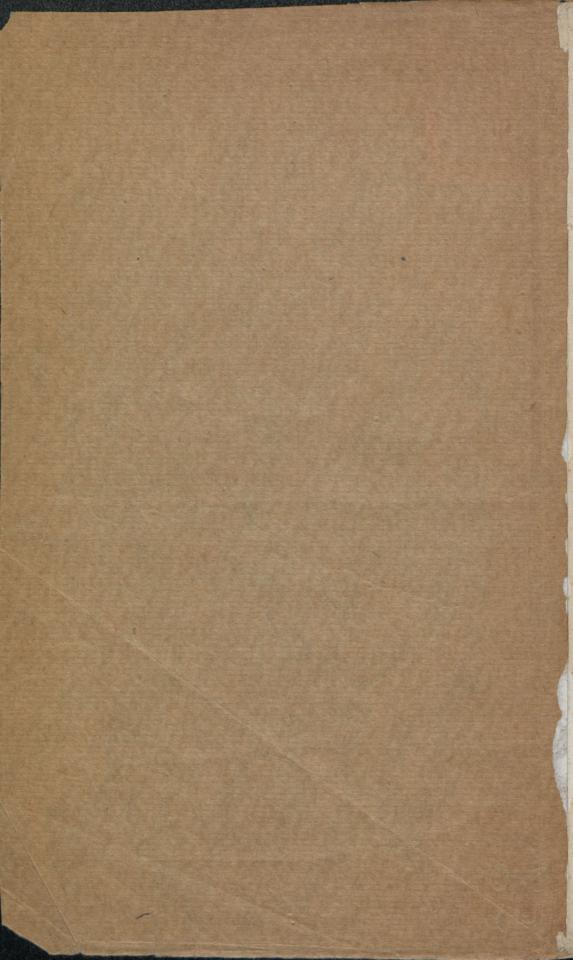
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Queensland.



DEPARTMENT OF AGRICULTURE, BRISBANE.

# SUGAR-PLANTING

IN

# QUEENSLAND.

BEING A REPRINT OF A LETTER WHICH APPEARED IN THE LONDON "TIMES," OF 7TH JANUARY, 1893.

This Pamphlet will be sent free to such Individuals interested in Farming as may request them. Address all applications to the Under Secretary for Agriculture, Brisbane.

#### BRISBANE:

BY AUTHORITY: JAMES C BEAL, GOVERNMENT PRINTER, WILLIAM STREET.

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### SUGAR PLANTING IN QUEENSLAND.

THE altered position of the sugar industry in Queensland under the new conditions seems to the Department of Agriculture a fact worthy of being brought under the notice of farmers in every part of the world.

Though much has been said and written on the subject of the sugar industry, comparatively few, even in the great centres of sugar manufacture, fully realise the main points of interest in the whole question. The trouble about the labour supply has practically ceased. The country has decided that Polynesians shall supply the sugar producers with that labour which is necessary to the progress and development of the sugar industry, and sufficient has been done to prove that Europeans in Queensland, under certain conditions, can successfully compete with any nation in the world in the production of sugar. Thus the object of this publication is to lay the true state of affairs before the public; to remove the misconceptions; and to explain not only how the sugar industry must be carried on, but also in what manner others can participate in the benefits to be derived from it, while they help to build up an enterprise that must, before many years, eclipse in greatness and in riches the foremost agricultural undertakings in Australia.

#### MISCONCEPTIONS RE SUGAR.

The popular idea of the sugar industry is unfortunately one that centres round the political questions involved in it. The producer is supposed to be working at a heavy loss, with every probability of early insolvency if the country does not grant the impossible boon of unlimited cheap coloured labour. The planter of to-day is supposed to be identical with the more or less mythical individual who did duty as such twenty years ago. The sugar industry is regarded as an aggregation of decaying estates owned by absentees who are endeavouring to make their investments possible by the extensive use of low-waged aliens. All these ideas are quite erroneous, and the industry

#### AS IT IS

is the most thriving and prosperous of the agricultural industries of Queensland. The millowner is enlarging and improving his factory, and with hardly an exception the owner himself superintends the work. Kanakas the country allows him, but these are only the means to an end. The end is to tenant the large estates with farmers. The gang labour system is doomed because of its inherent expense; the millowner must have cane, and so proposes to get contractors to grow

cane for him. He goes so far as to offer his land on easy terms of purchase to whoever will supply his mill with cane. He has ceased to be a planter, and proposes to become a manufacturer, pure and simple. All he asks for is someone to supply his factory with the necessary raw material, and hence the cry goes up—

#### "FARMERS WANTED!"

To farmers, then, this is of special interest. When the manufacturer was his own cultivator he did not buy from the farmer, but now the cultivation is passing from his hands he offers every inducement to others to keep his mill supplied. In many districts thousands of acres of the richest agricultural land, close to spendid sugar mills, are awaiting occupation. These lands can be leased or purchased on long or short terms, as may be desired, and a profitable and certain market lies at the door of each cane-grower. The farmer, with his own labour and that of an odd kanaka or two, can, and already does, cultivate cane more successfully and more profitably than the old-time planter ever did. As the Times correspondent pointed out, "it has been recognised that planting can be carried on much more economically upon a small scale than it can upon a large scale, while manufacture is better and more profitable with the resources of a considerable capital at command. The usual proportion of labour to land on a plantation of 1,000 acres is one kanaka to every five acres, while a farmer holding 100 acres will employ only ten kanakas, or one to every ten acres. The labour bill is at once reduced 50 per cent., and the expensive item of supervision is altogether abolished, with the result that the farmer can afford to sell cane to the mill more cheaply than the millowner can grow it for himself." Already local farmers are rushing the lands, but there is room for many more. The mills must have cane, and the

#### TERMS OFFERED

must be considered extraordinarily liberal. The manufacturer's profits depend almost entirely upon the amount of cane he can obtain to operate upon, and the millowners for years will be vigorously competing with each other for the farmers' produce. Examples of the terms offered by various estate-owners who have communicated with the Department of Agriculture are contained in an Appendix.

The results attained by the farmers are given in the clearest language in the letter of the Times Commissioner, so it is unnecessary to repeat them here. That correspondent had opportunities of interviewing farmers, and of inspecting their books, such as few people living in Queensland ever get. One thing, however, may be added: There is a great advantage which the cane-grower possesses over all other producers, to which special attention is drawn. His market is sure and close at hand. He delivers his cane and draws his money in cash, without deductions for commission, storage, freight, and other countless charges which reduce the ordinary farmer's profits to so low a figure. He can calculate his crop and know months beforehand what he will draw for it, and almost the day upon which he may expect

his money. He is in an unique position, being engaged in the only producing industry which has practically no risks and the certainty of

a handy and profitable market.

The Department has endeavoured to lay before the farmers of Australia some of the facts in connection with the sugar industry and the conditions under which they can participate in what is daily becoming a more gigantic and more profitable enterprise. words are the outcome of a conviction that the advantages and possibilities of a splendid industry are not fully realised by those who are vainly struggling to earn a bare livelihood on the lands of the colonies, and they aim at placing the facts of the case more fully before those interested. If the Australian farmer or the British yeoman do but read what has been said, and make inquiries, this will not have been written in vain; for it is certain that only the want of knowledge of the facts, and not lack of energy, enterprise, and capability, has kept them hitherto from sharing in the grand future which awaits those who seize the golden opportunity here shown to exist. The causes which have led to this changed state of affairs, the gradual extinction of large estates owned and worked by one head, and the present condition of the industry, are admirably set out in a letter which appeared in the *Times* of 7th January of this year. The letter is here reprinted.

### THE SUGAR INDUSTRY IN QUEENSLAND.

LETTERS FROM AUSTRALIA.

(From the Times, 7th January, 1893. From our Special Correspondent.)

Historically, the interest which attaches to the sugar industry in Queensland is that in fighting the battle of its own existence it fights the question of the development or non-development of the tropical portion of the Australian continent, with all the important issues that are involved. Actually, it has another interest of a more immediate and practical character. It offers at the present moment a field for the employment of English labour, intelligence, and capital, such as is rarely presented by agricultural enterprise, and the opportunity appears to me to be one which ought not to be missed for want of knowledge of

the existing conditions.

The old system of sugar cultivation concentrated all the interests in a few hands. The same man was planter, millowner, and manufacturer. Cultivation was expensive, manufacture unscientific, and millowning often supremely unbusinesslike. For a time prices were so high that nothing mattered; sugar was looked upon as a golden harvest for which men had only to scatter seed in order to be richly rewarded. There was a transition period in which speculative capital was largely invested. Then came the darkness of adversity. Prices fell, estates purchased in expectation of old values were found to be immensely over-capitalised; the uncertainties of colonial labour legislation, added to all the other difficulties with which embarrassed planters were endeavouring to deal, proved too much for the system,

and the sugar industry went more or less literally through the bank-ruptcy court. From the public point of view the result has not been altogether regrettable. Individuals were ruined; the industry has benefited. It has been brought out of the fantastic region of an El Dorado and set solidly upon its feet on the sober ground of remunerative enterprise. The same thing, in fact, has happened to it that happens to a good mine which has been over-boomed. While speculators have been turning away in disgust, men who understood the business have reorganised the entire system of working and development, and have rendered the property more valuable than it ever was before.

It has been recognised that planting can be carried on much more economically upon a small scale than it can upon a large scale, while manufacture is better and more profitable with the resources of a considerable capital at command. The usual proportion of labour to land on a plantation of 1,000 acres is one kanaka to every five acres, while a farmer holding 100 acres will employ only ten kanakas, or one to every ten acres. The labour bill is at once reduced 50 per cent., and the expensive item of supervision is altogether abolished, with the result that the farmer can afford to sell cane to the mill more cheaply than the millowner can grow it for himself. At the same time, ten men are holding land which, under the old system, was held by the planter Economically and politically, the system has such definite advantages that the only matter for surprise is that they have not been recognised before. On the other hand, the improvements of modern machinery and the benefits which have been found to result from the substitution of scientific methods for the rough-and-ready ways of rule-of-thumb manufacture have created a position in which the small owner has no place. Badly-made sugar is more than expensive; it is ruinous, for it cannot possibly command a price in competition with a superior quality which has been more cheaply produced. But a mill which contains the expensive machinery and employs the expensive labour rendered absolutely essential by the new methods does not pay unless it turns out more sugar than could be readily grown on even a very large estate. Both causes are working towards the same effect. The planter and millowner who grew all his own cane and made all his own sugar is becoming a figure of the past, and the principle of small growers and large millowners is accepted as the basis of future success. From end to end of the sugar district the transition is working itself out in different ways. At Bundaberg the Millaquin refinery, which is one of the largest and most complete mills in Queensland, works entirely upon juice bought from the neighbouring farmers and pumped into the mill from tanks fed by many miles of underground pipes. So do other mills still further South. The disadvantage of this system is that it leaves the very important item of crushing still in the hands of the unscientific farmer. The mill protects itself to some extent by paying for no juice that it does not receive; but if the application of better methods of crushing will bring, as in some instances they have been found to do, 20 per cent. more juice out of the cane, it is evident that scientifically-crushed cane-juice ought to be one-fifth cheaper,

plus the price of the more elaborate process. For this reason central mills prefer to buy the cane itself and keep the whole of the manipulation in their own hands. In the North, on the cleared scrub land of the Herbert River, the system of small farming is in full activity. Here selectors, living upon 160-acre Government lots, are growing cane with great success for the neighbouring mills. Amongst several into whose accounts I went with some care, I found that the man who was least well off had cleared 100 acres of land, of which 70 acres were under cane, and that he was making an income of about £800 a year, with working expenses of £500. He had started originally as a ploughman, without any capital, and, in addition to his land, now possesses a very good two-storeyed house and all the horses and implements necessary to the cultivation of his The others were in a very similar position, with incomes varying up to £1,500 and working expenses to £1,000. The proportion between working expenses and gross receipts was generally as five to eight. All of these men started as labourers, and have worked to their existing position in periods of from ten to twelve years, dating from the time of taking up their land. It is only since they have begun to grow sugar that they have achieved the results with which they are so satisfied. Other than tropical farming has not yet been found to pay in that district. All of them were dependent upon the mills of the big plantations for their markets, and were under a five years' contract to supply as much cane as they could grow. All of them were assured that, provided they were not deprived of the labour which they can at present command, the future which lies before them is satisfactory.

The price of cane varies throughout the sugar district, according to weight of crop, quality of cane, &c., from 8s. per ton of cane standing in the field—which was the lowest price that I heard anywhere quoted—to 13s. per ton cut and delivered at the mill. The average price of standing cane may be reckoned throughout the North at 10s. aton, and the contract price for cutting and delivering runs from 2s. 3d. to 2s. 9d. The farmer who has 100 acres under cane has as much as he is able to supervise satisfactorily himself, and working under a five years' contract he is able to see pretty clearly what his gross receipts are likely to amount to. The expenses of management and the improvement of the weight of crop by cultivation leave room for individual variation. owners on the Herbert River are so satisfied that cane grown for them at this price is cheaper than they can grow it for themselves that they are now cutting up their own plantations into small holdings, and offering them to tenants who will grow cane for them under a similar Here, where the rainfall is heavy and regular, there is no fear of drought, and the crop can be reckoned upon with tolerable A little further to the South, upon the open flats of the. Burdekin delta, where the difficulties of an irregular rainfall have to be dealt with, it seemed less likely that a system of small farming Throughout this district lagoons, should be carried out with success. which fill themselves by infiltration from the sandy soil, offer facilities for a system of artificial irrigation, which have been taken advantage of by the big plantations. Everywhere under the beds

of rose-coloured lilies, which preserve the surface of the water from evaporation, the nozzles of centrifugal pumps have been introduced, and millions of gallons of water are distributed daily over the fields. The difference in the weight of crop produced by irrigated and unirrigated land amounts to as much as ten tons of cane, or £5 in money value, and the expense of irrigation is estimated at about £110s. an acre. As in the case of other processes which require machinery, irrigation is relatively cheaper when it is carried out upon a large scale. Where the planter and millowner are one, the profit on the manufacture of ten tons of cane must be added to this increased production. Take this to be only the profit upon one ton of sugar—and in reality it would be more, for the cane must be very poor or very poorly treated which yields only one ton of sugar to ten tons—and the net profit of irrigation will be scarcely less than £S an acre. Here, if anywhere, it would seem advantageous for cultivation and manufacture to be retained in the same hands, but here, as on the Herbert, the system of small farming is recognised to be so obviously the best that the plan is being adopted of setting up central pumps and hiring out the water at so much an acre in order to enable small farmers to cultivate

under the best conditions.

At Mackay, which is universally regarded as the centre of intellect of the sugar industry, the system has been carried to its furthest expression, and peasant proprietors working their own plots with the assistance of their wives and children are doing well. The North Eton Central Mill, for which the capital was advanced by Government on the understanding that none but white labour should be employed, is almost exclusively supplied by cane grown in this way. It has not yet been established that any extent of ground larger than 30 or 40 acres can be profitably worked by one man under this system, and so far only married men, whose families supply the cheap and reliable labour, elsewhere obtained from kanakas, have succeeded. Cane grown by white labour in Queensland carries with it at present the advantage of establishing a peasant proprietorship, but it has the disadvantage of forcing women and children to heavy labour in the fields, and of restricting the area of plots of cane to as much as one man can cultivate for himself. It would also entirely prevent the establishment of the yeoman or gentleman-farmer class, who form no less valuable and desirable a part of the community. This is the class to which more than to any other the movement which is now taking place in favour of the subdivision of large estates offers exceptional advan-The market which has been created by the millowner is at the farmer's disposal, and he is allowed to take up land under the almost unique condition that he shares in the profits of an industrial enterprise. He depends, it is true, upon the mill of the neighbourhood to take his cane, but the mill depends no less upon him to grow the cane. The one man cannot exist without the other, and both are essential to the success of the industry in which they are mutually interested. Say that a mill has been constructed with machinery capable of turning out 4,000 tons of sugar in the course of the crushing season. In order to keep it working to its full capacity, it must have from 30,000 to 40,000 tons of cane. Had it been possible to produce this quantity economically on one large plantation, the present movement of expansion in the number of people admitted to share the profits would never have taken place. It was precisely because it was not possible that the old-fashioned planter looked upon the cultivation of sugar as a played-out game, and the newfashioned sugar-maker is inviting the co-operation of small farmers. In doing so he necessarily places his prosperity in their hands. If for any reason the farmers fail or refuse to supply the amount of cane required, the mill is deprived of just so much profit, and, the capital invested in the machinery remaining always the same, interest is cut down proportionately. The mill must pay or the market of the growers is gone. Cane-growing must pay or the mill is stopped. This inherent interdependence constitutes the strength of the position,

and is the safeguard of both parties to the bargain.

Accepting this as the first axiom of the industry that, unless sugar-growing can give a profit to all there will be no profit for any, it remains to find out what profit may be fairly looked for by the different classes engaged in it. I divide them into three-the manufacturer, the gentleman farmer, and the peasant proprietor. The manufacturer and the farmer, it must be understood, are both of them employers of coloured labour, though the manufacturer employs white labour in by far the larger proportion. The peasant proprietor represents only his own labour and the labour of his family. Coloured races not being allowed to own land in the colony, the peasant who grows up on freehold land must be necessarily white. Chinamen and kanakas are, however, growing sugar on a small scale on leasehold, and on the Burdekin especially the knowledge of irrigation possessed by Chinamen renders them apt in adopting the new methods of cultivation. Economically speaking, the relation of coloured labour to the industry is the same as the relation of machinery to other manufactures, and the agitation against it, which is maintained by the Labour party on the assumption that the introduction of coloured labourers deprives the white workmen of employment, is an almost exact parallel of the agitation against the introduction of machinery into England in the beginning of the century. I do not wish, in saying this, to seem to ignore the fact that there is an opposition conducted upon much higher grounds, which protests, for social and political reasons, against the introduction of a servile race into a selfgoverning colony, whose institutions are founded upon a basis of popular representation. But, leaving the moral aspect of the question for the moment on one side, the figures which have been placed at my disposal show, I think, pretty conclusively, that no one has in a material sense more to gain from the development of the sugar industry than the white labour.

With regard to the profits of manufacture, upon which all the rest depend, I have been allowed to take the actual cost of 2,500 tons of sugar, made in the present season, from the books of a millowner whose estate was in 1880 a dairy farm employing eight permanent hands. At the present moment it supports 212 whites and 420 South

Sea Islanders. All the figures are taken from weekly abstracts. The whites are charged wages, and rations at 5s. a week; the islanders are estimated at 15s. a week. White wages vary according to the quality of employment. The average throughout the mill, including some lads at 15s. a week, and exclusive of a sugar-maker who received £150 for the six months of the crushing season, is 21s. 6d. plus rations per week. Together with mill supplies, including waste, oil, and everything except new machinery, the total amounts to £3,513 7s. The cost per ton works out as follows:—

Wages and mill supplies		£1	8	2
Firewood (one ton of wood per ton of sug	ar) at			
5s. a ton		0	5	0
Carriage to wharf (contract)		0	3	3
Sewing bags, per ton		0	0	4
Wharf labour included in wages		0	0	0
8.5 tons of cane at 13s., in trucks, overs	eering			
and transport 1s. per ton		5	19	0
				_
		£7	15	9
		-		_
Net price at the wharf after analysis in Syd	ney	£11	15	0
		-		
Net profit over working expenses		£3	19	3

Call this roughly, for purposes of easier calculation, £4 profit, out of which interest upon capital has to be paid. The heart of the question is only reached when the total output of sugar and the total capital account are known. If the total output is 3,000 tons and the capital account anything under £100,000, the millowner may be well content with a return of 12 per cent. If the output falls below 2,000 tons, and the capital account amounts, as in the case of one very large but now abandoned estate which I was shown upon the Burdekin delta, to nearly a quarter of a million, the result may easily be ruin. It clears the position, therefore, to be able to add that a factory capable of turning out over 3,000 tons of sugar in the season, and possessing fifteen miles of tramway, with 260 trucks for the conveyance of cane, can be set up at a capital cost of £60,000. This is not a fancy estimate, but is taken, like the cost of manufacture, from the books of a mill actually working upon the figures named. It is exclusive of any land. It rests with the individual manufacturer to take care that his capital is advantageously laid out in the first instance, and that the mill works up to its full capacity, with due regard for economy in the methods employed. Sugar-making, like every other business, affords ample scope for organisation, and, while it becomes every day more interesting, because every day more scientific, its tendency is to become less and less a profession for amateurs. All that is proved by the figures which I have been able to quote is that for the millowner who knows his business there are very satisfactory profits to be made. The dividends paid regularly by the Colonial Sugar Company will fully bear out this assertion. The millowner who does not know his business remains free to fail, and to declare that there is no longer a living to be made out of sugar.

In the estimate of the first cost of the sugar it will be observed that the price of cane to the manufacturer is put down at 13s. in the trucks. This is the basis upon which the profits of the grower may be calculated. Two sets of figures have been prepared for me with the greatest care, one relating to what I will call the gentleman farmer, because he is in the position of an employer and does not give his own personal labour, the other relating to the peasant proprietor or leaseholder, who employs no labour outside that of his own family. I may mention that they came to me from different sources. The conclusions, in so far as they confirm each other, are therefore the more reliable. The first set gives an estimate of average receipts and expenditure on a farm of 100 acres for six years, 60 acres being under crop and the balance reserved for grazing, garden, homestead, &c. The price of the land, bought at £5 an acre under a buying lease of five years, is included in the expenditure. It is not possible, within reasonable limits of space, to give the whole return, in which the cost of each operation is worked out in detail. I can only briefly summarise the result:—

In the first eighteen months there is an outlay of £636 5s., with a return of only £487 15s., which leaves a debit balance of £148 10s. to be subtracted from the next year's profit. The second year gives an expenditure of £460, with return of £715. The whole first expenditure is now paid off, with a net profit of £115. The third year gives expenditure of £468 15s., with a return of £715 10s.—net profit £246 15s. The fourth year gives expenditure of £265 15s. Thirty acres this year are fallowed, and returns are only £315—net profit £40. Fifth year, expenditure £418, returns £580—net profit £162. Sixth year, expenditure £360 15s., returns £715—net profit £354 5s. From this time the farmer has no more rent to pay. The land, worth £500, is his own, and his expenditure will be reduced by £100

a year.

The result of the six years, therefore, stands thus:-Net profit, £918; horses and plant, £200; land, £500; crop, estimated to produce, net, £272—£1,890. I give the figures as they have been supplied to me, all labour being calculated at contract prices, assuming that the farmer does no manual work, and that he buys land which has been already cleared. The result is less favourable than the instances which came under my personal observation on the Herbert, in which the farmers worked themselves and paid nothing for land, and much less favourable than an account given to me by one gentleman farmer at Mackay of his actual experience of seven years. He had given his own work in the first years, employing kanakas and working with them, thus keeping for himself the profit which, in the estimate given above, goes to the contractor. He had also taken up scrub land and cleared it instead of buying land at £5 an acre. experience was by so much the rougher and the richer. In the seven years there were two years of drought. They may therefore be taken as including a fair average of accident. The result for him was that, having started with £700 of borrowed capital and taken up 80 acres of uncleared scrub, he found himself at the end of the seven years with 80

acres of rich land under cane, a good house, the £700 of borrowed capital paid off, and £2,000 in the bank. This is a result which demands no exceptional ability. It may be achieved by any healthy, industrious, and fairly intelligent man, who cares enough about the future to endure the hardships of the earlier years. A young man coming out from England, whether he be the son of a gentleman or not, would do well to come with a resolution to serve his apprenticeship by working, in the first instance, for wages until he has gained practical experience. Suppose that he comes out at the age of twenty, that he works as a labourer for £1 a week and his rations up to the age of twenty-three, and that he then enters upon such a seven years' experience as I have described. If he finds himself at the age of thirty in possession of a farm upon which the crop is worth not much less than £1,000 a year, with a good house, and a balance of £2,000 at the bank, the ten years will certainly have produced a better result than can be hoped for by many of the younger sons of clergymen and other professional men as the outcome of ten years' work under the ordinary conditions that offer themselves for their acceptance. For the gentleman, as for the workman, it should, however, be said at once that it is useless for any man to enter upon the life unless he is steady, healthy, and endowed with some constancy of purpose. Cane-growing means work. It does not demand of a man that he should be a genius, a hero, or an athlete. It does demand that he shall be mentally, morally, and physically sound. The average good fellow who feels himself scarcely qualified to face the fierce competition of an older country, but is prepared to do his duty according to the catechism definition, may do very well. The average loafer and tippler and young man who expects his plums to fall ripe into his mouth will do no good. There are modest fortunes to be made. There are none to be lounged into.

A great deal that has been said with regard to the farmer applies, of course, to the peasant proprietor. The difference is rather one of degree than of kind, except in this respect: that whether the labour be given or hired there is always the larger expense of the living and labour of white men to be deducted from the profit yielded by any given number of acres. The only place from which I have been able to obtain authentic details of the cost and profit of sugar-growing under these conditions is the North Eton Central Mill at Mackay. I assume that what holds good there will hold good throughout the sugar districts generally, with slight differences as to terms of leases and price of cane, and with probably some greater difficulty for the white man in working out of doors as he goes further North. There are at present between 2,000 and 3,000 acres of forest and scrub land available within the market area of the North Eton Mill, which can be taken up on the exact terms described. The mill, I should explain, is the property of shareholders who own land in the vicinity, and either grow cane for their own market or sell or sublet in small lots. The smallest lot from which subsistence for the grower and any margin of profit can be drawn is 20 acres. Even this is too much for a single man to cultivate, and it will not repay him if he hires white assistance. A married man with an active wife and four or five children, ranging up to the ages of twelve and thirteen, has all that he can do with 40 acres. The North Eton Mill owners let land under three different sorts of leases. One is that the farmer shall get market price for all his cane and pay £1 an acre for the landmarket price being at present 13s. a ton. Under the second form of lease the farmer contracts to sell all his cane at 10s. 6d. a ton, and the difference between 10s. 6d. and the market price is accepted as a royalty in the place of rent. The third form of lease is for scrub land, where the crops are heavy and a royalty of 1s. per ton of cane is accepted instead of rent. Under all these leases the owner of the land will advance the money required for preliminary expenses, and take payment out of crop when it is ripe. The first outlay, including four horses, materials for a house, and the necessary ploughs and other implements, will amount to something over £100. The estimate which has been supplied to me of the results of five years' work for a family taking up 40 acres, which quantity will be necessary in order to enable them to get crops in rotation, though it will never be all at one time under cane, can be summarised as follows:-

1st year No cane.				
2nd year 7 acres late planting, at 25 tons = 175 t	ons			
at 13s. =		E113	15	0
( 5 acres early planting, at 35 tons =		113	15	0
3rd year { 5 acres early planting, at 35 tons = 5 acres late planting, at 25 tons = 7 acres 1st ratoons (late plant), 25 tons		81	5	0
(7 acres 1st rations (late plant), 25 tons	=	113	15	0
4th year   7 acres late planting, at 25 tons = 5 acres 1st ratoons (early), at 18 tons 5 acres 1st ratoons (late), 25 tons = 7 acres 2nd ratoons, at 10 tons =		113	15	0
4th year ) 5 acres 1st ratoons (early), at 18 tons	=		10	0
5 acres 1st rations (late), 25 tons =			5	0
7 acres 2nd ratoons, at 10 tons =		45		0
7 acres late planting, at 25 tons =		113		0
5th year { 7 acres late planting, at 25 tons = 7 acres 1st ratoons (late), 25 tons = 10 acres 2nd ratoons, 10 tons =		113		
(10 acres 2nd rations, 10 tons =		65	0	0
In all, 1,560 tons of cane at 13s. =	£1	,014	0	0
Against this the expenses will be :				
House, horses, and implements	£102	17	0	
Food and clothing for five years, at 30s. a week	390	.0	0	
Food and clothing for five years, at 30s. a week Repairs, &c., at £16 4s. a year	81	0	0	
	£573	17	0	
Rent for five years at £40	200	0	0	
	£773	17	0	
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The clear profit after living for five years will be £240 3s., besides house and horses. The man who owns this sum, in addition to the means of livelihood, is in a position to take up freehold land if he chooses, but it is to be observed that £240 would not pay the wages of a white labourer at the average rate for five years. To employ even one labourer would convert the profit balance into a loss, and success depends upon the family being able to work the land entirely for themselves. The difficulty of raising the first capital, which is usually the stumbling-block in the way of small enterprise, is got rid of by the

advantage which millowners find in advancing it. On the Herbert River, plantations, which are not limited to white labour, are letting land to farmers in larger lots and under similar conditions. With regard to the estimate of 30s. a week for the food and clothing of the family, I may add that in cost of living Queensland differs greatly from South Africa. It is essentially the poor man's country. Meat, bread, and vegetables are so cheap that a man lives largely, with three meat meals a day and other small luxuries, at a cost of about 5s. a week. Fruit where it grows is so plentiful that it has no price. Where it does not grow it can hardly be obtained at all. Horse and cattle feed costs very little, and no homestead need be without cows and poultry. Even the kanakas on the sugar plantations keep poultry for their own use.

These facts prove, I think without doubt, that the sugar industry in Queensland offers very great advantages alike to millowners, farmers, and labourers. It has impressed me, in travelling over the 1,000 miles or so of coast throughout which the plantations are distributed, that these advantages have been hardly realised as yet except by the scattered groups of individuals who are at different points reaping the benefit of them. Even the sugar industry itself appears as a whole to be half unconscious of the results of the reorganisation through which it has passed, and lies, as it were, still asleep in the dawn of its own prosperity. The fact is not altogether surprising when the immense distances which divide the centres of cultivation are taken into account. Everyone has not the time to travel 1,000 miles in order to make himself acquainted with the results of his neighbours' work, and the small farmer of the Herbert and the Barron is almost as ignorant as a Londoner of what is being done in Bundaberg and Mackay. But this unconsciousness will not last. Plantations now are thinly scattered up and down the coast like seed sown over a wide field. It seems inevitable that the wealth which a sugar settlement can develop will come soon to be a matter of general recognition. When it does, plantations must begin to multiply themselves, and, the movement of expansion once started, there is no reason to assign any limit to it other than that set by the requirements of the world's market. Nor can there be much question that the successful cultivation of sugar carried on under a system which gives employment to so many hands and settles such a proportionately large population on the soil will bring in its train the cultivation of other tropical crops. All the resources of a new country are here at command. In the Cairns district alone, where at present the plantations, including those on the Johnstone and the Herbert, could be counted on the fingers of two hands, there are not less than 2,500 square miles of tropical scrub which wait to be cleared. Much of this as it stretches inland towards the rich mineral district of Herberton is covered with cedar, of which the timber value alone is not easy to estimate. Single specimen trees have been known to yield 20,000 superficial feet, and 7,000 is an ordinary measurement. They average, generally, 600 superficial feet to the ton, and large quantities wait only for the country to be opened in order to be put upon the market. Besides these there are many kinds of pine, and the

silky-oak and the bean-tree are also valuable. On the Burdekin, at Mackay, at Bundaberg and south of it there exist large quantities of virgin land. The climate, especially as it leaves the region of heavy rainfall and gets towards the South, though hot, is not unhealthy. The inhabitants of Mackay even claim for their climate that it is one of the most delightful in the world. Nothing appears to be wanted for development of the country but labour and capital. If these are allowed to come in unimpeded by prohibitive legislation, the future can be scarcely doubtful. At present, as one of the successful planters observed to me, the colony is suffering chiefly from too much fatness of land and no people to use it. Upon the coast alone vegetation runs riot over vast areas of fertile soil, where a population as thick as the population of Egypt might subsist.

Since the above was written the Government of Queensland, recognising the difficulties that might arise in finding a market for cane should the area under cultivation be suddenly very largely increased, have passed an Act, under the provisions of which the Treasurer is permitted, on behalf of the Government, to guarantee debentures which may be issued by groups of farmers for the purpose of raising the necessary funds to erect mills. By this measure the amount of cane grown can never under any circumstances exceed the milling power for any length of time. Further, the Act is a distinct encouragement to farmers in places not at present reached by the existing mills to band themselves together and commence cane growing, as they have the certainty that if they fulfil certain conditions the Government will assist them to procure a mill.

## RESULT OF SIX YEARS' OPERATIONS IN SUGAR GROWING.

The following tables show the estimated results of a farm where the owner does no work himself, and the returns are his payment for supervision merely.

A considerable portion of the expenses may be avoided if the

farmer works himself.

It will be observed that £400 has been allowed for sundries, an amount which entirely depends upon the economy exercised by the farmer, and should be dispensed with altogether, bringing his total profits up to nearly £2,000.

Little or no fencing is required if the land has been taken up on

an already formed plantation.

The average returns from the land has been put at a low figure,

while every allowance is made for expenses.

The farmer should also remember that cane has so far only once—in 1876—suffered from a disease. Since then rust pests and other destroying agents have been practically unknown.

Farm of 100 acres, 60 acres cultivated to cane, balance for garden, grazing, &c. Price, £5 per acre, under buying lease for five years, rental being £1 per acre per annum.

### FIRST EIGHTEEN MONTHS.

EEN MONTHS.
EXPENDITURE.  £ s. d. £ s. d.  By House, stables, &c. 100 0 0  ,, Harness, drays, &c. 75 0 0  ,, Three horses at £15 45 0 0  ,, Fencing 50 0 0  ,, Rent for first year  , 30 acres cultivated— 1st ploughing— 22s. 6d 33 15 0 2nd ditto, 15s 22 10 0 3rd ditto, 12s. 6d. 18 15 0 Planting, £1 5s. 37 10 0 Cleaning and trashing, 15s 22 10 0  ,, Harvesting, 3s. 6d. per ton—25 tons per acre 131 5 0  £636 5 0
2030 3 0
D YEAR.
By Balance
YEAR.
By Cultivating and harvesting 10 acres plant cane at above rates 88 15 0, 50 acres ratoons, cultivated

#### FOURTH YEAR.

RECEIPTS.								-
		0		7	Expenditure.			,
To Balance		£ 251	s. 15	$\frac{d}{0}$	By 10 acres 1st ratoons and 20	£	8.	a
,, 10 acres 1st ratoons, at tons at 13s.		130	0	0	acres 2nd, cultivated as	78	5	
,, 20 acres 2nd ratoons, at		.00	U	U	,, Harvesting 10 acres at 20	10	9	
tons at 13s		185	0	0	tons, and 20 acres at 15	0=	10	
" 30 acres fallowed					tons, at 3s. 6d. per ton	100	10	
					"Sundries	100	0	
	_	18	83	ATI	"Balance	201	0	
OTAY.	£	566	15	0	MADE REPRESADE	£566	15	
principal are lamen		F	IF'	гн	YEAR.			
RECEIPTS.	ne's		qu	3	Expenditure.	noi		
Γο Balance		£ 201	8.	d. 0	By 30 acres cultivated as in the	£	s.	(
,, 30 acres plant cane, at		.01	U	U	1st year, and harvested	266	5	
tons at 13s		187	10	0	" 10 acres 2nd ratoons at	00	_	
,, 10 acres 2nd ratoons, at	19	92	10	0	above rates ,, Harvesting 10 acres, at 15	26	5	
" 20 acres fallowed					tons at 3s. 6d	26	5	
					, Rent	100	0	
					"Balance	262	5	
	£7	781	0	0	Compaint also provide	£781	0	
A remaining a linux as		SI	IX'	гн	YEAR.	iner Jak	mi	
the manner of the section and	-						-	19
RECEIPTS.		OH.			EXPENDITURE.	with the same		
		£	8.	d.	le per ten and naments).	£	8.	
	2	£ 262	s. 5	d. 0	EXPENDITURE.  By 20 acres plant cane, cultivated and harvested as	£	8.	
To Balance, 20 acres plant cane, at tons at 13s	25 25 S				By 20 acres plant cane, cultivated and harvested as in the 2nd year	£ 177		
To Balance, 20 acres plant cane, at tons at 13s, 30 acres 1st ratoons, at	25 25 20	262 325	5 0	0	By 20 acres plant cane, cultivated and harvested as in the 2nd year, 30 acres 1st ratoons, as	177	10	
To Balance, 20 acres plant cane, at tons at 13s	25 25 20	262	5	0	By 20 acres plant cane, cultivated and harvested as in the 2nd year, 30 acres 1st rations, as above, No rent	177 183	10 5	
To Balance, 20 acres plant cane, at tons at 13s, 30 acres 1st ratoons, at tons at 13s	25 25 20	262 325	5 0	0	By 20 acres plant cane, cultivated and harvested as in the 2nd year, 30 acres 1st ratoons, as above, No rent, Sundries	177 183 100	10 5 0	
ro Balance ,, 20 acres plant cane, at tons at 13s ,, 30 acres 1st ratoons, at tons at 13s	25 25 20 20 3	262 325	5 0	0	By 20 acres plant cane, cultivated and harvested as in the 2nd year, 30 acres 1st ratoons, as above, No rent, Sundries, Balance	177 183	10 5 0	

Grand Total, Cr.

- (say) 200 0 0 500 0 0 516 10 0

272 10 0

£1,489 0 0

### SETTLEMENT UPON SUGAR PLANTATIONS.

# EXAMPLES OF CONDITIONS OFFERED BY OWNERS OF ESTATES.

#### HOMEBUSH PLANTATION, MACKAY.

The Colonial Sugar Refining Company, Limited, are subdividing their Homebush Plantation in Mackay into 50-acre blocks, 25 acres of which are cleared and stumped, and possibly under crop, and 25 acres forest land uncleared. The Company are leasing this land for a period of five years at an annual rental of 5s. per acre for the cleared, and 1s. per acre for the uncleared. One clause in the agreement to be entered into between the parties gives the tenant the right to purchase his holding at any time during the first three years, at the rate of £5 per acre for the cleared land, and £1 per acre for the uncleared, the terms of payment being one-fifth in cash, and the balance by four equal annual instalments, bearing interest at 5 per cent.

The Company also provide rations to the value of 10s. per week at cost price, which is deducted from the value of the cane. The Company are also in a position to sell horses and implements to tenants.

Finally, the Company guarantee to purchase the cane from the tenants at the current rates ruling in the district (which vary from 12s. to 13s. per ton and upwards).

#### DUMBLETON PLANTATION, MACKAY.

Mr. A. H. Lloyd, of Dumbleton, Mackay, is prepared to sell or lease his plantation, forest land, in lots to suit tenants, the purchasing price being for arable land, £5 cash, or arrangements after two years' tenancy; pastoral land, £2 10s. per acre, spread over five years, and lease at 1s. per ton of cane taken off. Does not undertake to buy cane. (The nearest mill, two miles off, would doubtless purchase cane, and are paying 12s. and 13s. per ton.)

#### THE MELBOURNE MACKAY SUGAR COMPANY, MACKAY.

The Melbourne Mackay Sugar Company, Mackay, are prepared to lease certain portions of their property at 15s. per acre, or sell at £10 per acre. They pay 12s. per ton for cane delivered at the mill.

#### YEPPOON PLANTATION, ROCKHAMPTON.

The proprietary of the Yeppoon Plantation, Rockhampton, are prepared to lease land in blocks to suit tenants, at an annual rental of

£1 per acre for five years, or 1s. per ton on all cane cut, rent only chargeable on land actually under cane. Tenants are allowed grazing area equal to the area under cultivation rent free. To sell outright at £5 per acre for uncleared land, and £15 per acre for cultivated lands, payable in five years, at the rate of £3 per acre per annum. purchaser to pay no interest on purchase money for the first three years, and then to have the option of paying off the balance or letting it extend for the two following years, bearing interest at 8 per cent. per annum. Advances are made on lien of work done or on growing crops. Twelve shillings per ton is paid for cane delivered at the mill, half cash, payable monthly, and the balance at four months. Every consideration will be shown to tenants who intend making a living out of the land. The proprietary are also prepared to lease land actually under crop of ratoons rent free for that year, and will pay 6s. per ton of cane cut. The farmer to plough out at the end of the year and replant, when 12s. per ton will be paid and a rent of £1 per acre or 1s. per ton charged.

#### RIPPLE CREEK ESTATE, HERBERT RIVER.

The proprietary of the Ripple Creek Estate, Herbert River, are also prepared to cut up their land in suitable blocks, provided some reasonable prospects of the whole of the land being settled is evident, on the following terms:—To lease at an annual rental of from 20s. to 30s. per acre for cultivated land; to purchase cane at 8s. per ton, standing; make advances against growing crops. Intending tenants must be prepared, the land being all cleared, to carry on for twelve months.

#### VICTORIA PLANTATION, HERBERT RIVER.

The property of the Colonial Sugar Refining Company, Limited. Terms similar to Homebush, Mackay.

#### GOONDI PLANTATION, JOHNSTONE RIVER.

The property of the Colonial Sugar Refining Company, Limited, Sydney. The Company are prepared to lease with right of purchase—

Lease		Sell.
Virgin Scrub	3s. per acre per annum	£3 per acre.
Cleared Scrub		£10 ,,
Cleared and grubbed } fit for plough }	13s. , ,, ,,	£13 "

and undertake to purchase cane at 11s. per ton, delivered at their tramway line.

#### PIONEER ESTATE, LOWER BURDEKIN.

The property of Messrs. Drysdale Brothers. The proprietors are willing to lease forest land in blocks varying from 40 to 100 acres, for a varying term of years, on the following terms:—For land cleared of timber and roots, and with use of irrigation pumps and water channels, one-quarter the proceeds of crop, 11s. per ton being paid for the cane delivered on trucks, and 12s. at mill.

Advances are made against growing crops, and labour assistance given when possible.

This plantation is distant fifty miles from Townsville.

### WINDERMERE PLANTATION, BUNDABERG.

The property of Messrs. Nott Brothers. The proprietors are prepared to lease blocks of scrub land, under cane, for periods varying from five to ten years, at rentals from £2 to £3 per acre per annum, none of the land being further than three-quarters of a mile from the mill. Messrs. Nott Brothers agree to purchase cane at the ruling market rate. This proprietary is also prepared to lease certain areas of forest land at 1s. per acre for the first three years, thenceforth a royalty of 1s. per ton of cane.

### LAND SELECTION IN QUEENSLAND.

Area of Queensla	and	 		 	427,838,080 acres
Population		 		 	421,297
Railways open		 		 	2,373 miles
Telegraph Lines		 		 	$10,002\frac{3}{4}$ ,,
Length of Wire		 		 	17,8014 ,,
Postal Routes—					
By Railway		 		 	2,326 ,,
" Coach		 	***	 	8,064 ,,
,, Horse	m	 		 	17,570 ,,
	Total	 		 	27,960 ,,

THE Colony is, as far as is necessary, divided into Land Agents' Districts, in each of which there is a Public Lands Office and Government Land Agent, to whom all inquiries respecting the situation, quality, rents, and prices of lands available for selection in his district should be addressed, and with whom applications for farms must be lodged. Applications for farms must be made in the prescribed form, and be signed by the applicant, but may be lodged in the Land Office by his duly authorised attorney. There is connected with the Survey Department, in Brisbane, an office for the exhibition and sale of maps, and there full information respecting lands available for selection throughout the Colony can be obtained on personal application. Plans can also be obtained at the District Offices.

The conditions under which Country Lands may be acquired for Settlement by persons of either sex over eighteen years of age—

married women excepted—are substantially as follows:

#### GRAZING FARMS.

Surveyed areas of land are made available for selection as grazing farms over a great extent of Queensland territory within accessible distance of the seaboard. In these areas intending settlers can obtain grazing farms of areas up to 20,000 acres on lease for a term of thirty years at an annual rent varying according to the quality of the land, three farthings an acre being the minimum. This rent is subject to re-assessment by the Land Board after the first ten years, and subsequently at intervals of five years, but the rent cannot be increased at any re-assessment to more than 50 per cent. above that for the period immediately preceding. The applicant first obtains a license to occupy, which is personal to the applicant and is not transferable, but may be exchanged for a lease for the balance of the term of thirty years as soon as the farm is enclosed with a substantial fence. This must be done within three years. This lease may be transferred or mortgaged, or the farm may be subdivided, or, with the consent of the Land Board, be sub-let. The land must be continuously occupied by the lessee or his agent for the whole term of the lease, and cannot be made freehold. The cost of survey, ranging from something like £30 for a farm of 2,560 acres to about £65 for a farm of 20,000—subject to increase or decrease according to locality—must be paid with a year's rent when the farm is applied for.

#### AGRICULTURAL FARMS.

The more accessible lands near lines of railway, centres of population, and navigable waters are set apart for agricultural farm selection in areas up to 1,280 acres. In the case of these farms the period of license is five years, during which the selector must fence in the land or expend an equivalent sum in other substantial improvements. As in the case of grazing farms, as soon as the improvement condition has been complied with a lease is issued; but in this case for a longer term—namely, fifty years from the date of the license, and with a right of purchase. The annual rent may range from threepence per acre upwards (seldom exceeding one shilling) according to the quality and situation of the land, its natural supply of water, &c., and is subject to periodical re-assessment, as in the case of grazing farms. The selector must occupy the land continuously, either in person or by agent, for the whole term of the lease. The cost of survey, ranging from about £10 or £12 for a farm of 160 acres to from £20 to £40 for a farm of 1,280 acres, must be borne by the selector.

Acquisition of Freehold.—When an agricultural farm not exceeding 160 acres in area is occupied by the selector in person, the freehold can be secured on extremely liberal terms as regards money payments, five annual payments of sixpence per acre being all the purchase money required, and the cost of survey also being payable in like instalments. The conditions attached to the granting of these liberal terms are the expenditure in improvements of a sum equal to ten shillings per acre, and the immediate, continuous and boná fide personal residence on the

land of the selector for five years.

With regard to agricultural farms exceeding 160 acres in area, where the condition of occupation has been performed for five years by the continuous and bona fide personal residence of one lessee, or for ten years by successive lessees, the freehold may be secured on payment of the prescribed purchasing price. If the purchase is made within twelve years from the commencement of the term of the lease, the price will be that mentioned in the proclamation declaring the land available for selection (not to be less than fifteen shillings per acre); if after that period, the price will be increased in proportion to the increase of rent upon reassessment. The rent reserved under the lease usually amounts to about two and a-half per cent. on the purchasing price, and all rent paid during the period of personal residence is counted as part of the purchase money.

Village Settlement.—Special provision is made by law for the settlement of little communities, so that settlers may live together in townships for mutual protection and convenience on allotments not exceeding one acre in extent, and with farms of eighty acres in close proximity to their residences.

The freehold of these farms may be secured generally on the same terms as above stated in regard to agricultural farms not exceeding 160 acres in area, with the additional privileges that residence on an allotment in the township is held equivalent to residence on the farm, and one-fifth of the required improvements may be made on the allotment.

Co-operative Selections.—Two or more selectors of agricultural farms not exceeding 80 acres each may associate for mutual assistance under license from the Land Board. A selector may perform conditions of residence for himself and any other member of the association, providing that at least one selector is in actual occupation for every 160 acres; and if more than ten shillings per acre is spent on permanent improvements on any one farm, the surplus may be credited to any other farm or farms in the group.

#### UNCONDITIONAL SELECTIONS.

Areas of land are also available for Unconditional Selection at prices ranging from £1 per acre upwards, payable in twenty annual instalments. As the term implies, no other conditions than the payment of the purchase money are attached to this mode of selection—the disqualifications imposed in the case of agricultural farms being also removed, with the exception of the restriction upon the area allowed to be selected. The cost of survey, on the same scale as for agricultural farms, must be deposited with the first instalment of purchase money at the time of application.

#### LAND ORDERS.

To approved persons of European extraction, paying their own passages or those of members of their families in full to Queensland from Europe, the United States of America, or any British possession other than the Australasian Colonies, Land Orders are issued of the value of twenty pounds sterling (£20) for each person of twelve years and upwards, and of ten pounds (£10) for each child between one and twelve years of age. These Land Orders are available for ten years from the date of issue, to their full nominal value, for use by the head of the family in payment of the rent of any agricultural or grazing farm, but not an unconditional selection, held by him, or they may be used by the members of the family severally—wife and children under eighteen years of age, of course, excepted-in payment of the rent of farms held by them respectively. Land Orders are not transferable, and can only be used by residents in the Colony. They are therefore of no use to anyone who does not settle on the land and fulfil the conditions as above described.

A single Land Order of the value of £20 will of course suffice for the payment of the whole purchase money of a farm of 160 acres under the personal residence conditions above described, and only the survey and deed fees will need to be paid in cash.

Persons intending to proceed to Queensland from Great Britain and to pay their passages in full, and desiring to obtain Land Orders

upon arrival in the Colony, must make application to the Agent-General for the Colony, at No. 1 Victoria street, London, S.W., for Land Order Warrants: as without them Land Orders will not be issued in the Colony.

#### EDUCATION.

There is no State Church in Queensland. State Schools are established in almost every locality where there are thirty or forty children. Well-trained male and female teachers are appointed by the State, and a good English education is afforded in the State Schools free of charge. Grammar Schools are liberally endowed by the Government, and ninety scholarships for boys and thirty for girls are offered annually by competitive examination to pupils of the State Schools, entitling them to three years' free education in a Grammar School. Three exhibitions, tenable for three years, are also annually offered to students under nineteen years of age desirous of proceeding to any of the Universities of Australasia or Great Britain.

#### DEPARTMENT OF AGRICULTURE.

There is now established in Brisbane a Department of Agriculture, the general objects of which are to disseminate among the people useful information on subjects connected with Agriculture, and to procure, propagate, and distribute new and valuable seeds and plants. The Department at present employs an Instructor in Agriculture, a Travelling Dairy (which is kept constantly in the field, with a full equipment of the most modern apparatus), and an Instructor in Meat-preserving. These and other specialists are constantly employed in imparting to settlers knowledge in their separate lines that is most likely to prove helpful to them. Connected with this Department, in Brisbane, are an Agricultural Library, a valuable collection of Queensland woods and agricultural products, and a Herbarium of Australian Plants, all accessible to the public. There are also State Nurseries or test stations at Mackay and Cairns.

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State Library of Queensland